

Application No. 10/670,950  
Response to First Office Action after RCE of June 14, 2007

Customer No.: 53,096

In the Claims

Listing/Amendments to the claims including status indicators:

Claims 1-17. (Canceled)

18. (Currently amended) A therapeutic dental delivery device for treating a condition in an oral cavity of a subject, comprising:

a liquid oral therapeutic dental composition, said therapeutic dental composition comprises a moisture or temperature responsive composition that increases in viscosity in a moist environment upon dispensing into the oral cavity;

an applicator for applying the composition to the oral cavity, is selected from the group consisting of a brush, felt tip and or a roller ball;

an activator coupled to the applicator, said activator is selected from the group consisting of a push button click mechanism and a twist and ratchet mechanism;

a cap for covering the applicator; the cap having an open end terminating at a position between the activator and the applicator; and

a reservoir located in the device proximate the activator and configured to store the composition;

wherein the activator is configured to dispense the composition from the reservoir.

19. (Original) The device of claim 18, wherein the therapeutic dental composition comprises a moisture responsive gel carrier and a therapeutic agent dispersed in the moisture responsive gel carrier.

20. (Original) The device of claim 19, wherein the moisture responsive gel carrier comprises a moisture sensitive polymer complex and a water soluble salt.

21-24. (Canceled)

25. (Currently Amended) The device of claim 18, wherein the applicator is a brush and wherein the activator is a push button click mechanism configured to dispense the composition to the brush applicator.

26. (Currently Amended) The device of claim 18, wherein the applicator comprises a brush and the activator comprises a twist and ratchet mechanism for dispensing the composition to the brush.

27. (Currently Amended) The device of claim 18, wherein the applicator comprises a felt tip and the activator comprises a push button click mechanism, wherein the push button click mechanism dispenses the composition to the felt tip applicator.

28. (Currently Amended) The device of claim 18, wherein the applicator comprises a felt tip and the activator comprises a twist and ratchet mechanism, wherein the twist and ratchet mechanism dispenses the composition to the brush applicator.

29. (Previously Presented) The device of claim 18, further comprising a mechanical piston at least partially disposed within the reservoir.

30. (Currently Amended) The device of claim 20, wherein the applicator comprises a brush and the activator comprises a twist and ratchet mechanism, wherein the twist and ratchet mechanism dispenses the composition to the brush applicator.

31. (Previously Presented) The device of claim 18, wherein the applicator is a brush comprising a plurality of bristles, wherein the plurality of bristles are aligned generally parallel with an axis defined by a lengthwise direction of the device.

32. (Previously Presented) The device of claim 29, wherein the activator dispenses the composition from the reservoir to the applicator by advancing said mechanical piston into the reservoir.

33. (Original) The device of claim 20, wherein the moisture sensitive polymer complex comprises carboxypolymethylene and polyvinylpyrrolidone.

34. (Original) The device of claim 19, wherein the therapeutic agent comprises a peroxide.

35. (Original) The device of claim 19, wherein the therapeutic agent comprises hydrogen peroxide.

36. (Original) The device of claim 19, wherein the therapeutic agent comprises carbamide peroxide.

37. (Original) The device of claim 18, wherein the composition is present in an amount of from about 0.01 ml to 1.0 ml.

38. (Previously Presented) A therapeutic dental pen for treating a condition in an oral cavity of a subject, comprising:

a liquid oral therapeutic dental composition comprising a moisture responsive gel carrier and a therapeutic agent dispersed in the responsive gel carrier, wherein the gel carrier comprises a polymer complex including carboxypolymethylene and polyvinylpyrrolidone and a water soluble salt;

a brush-on applicator for applying the composition to the oral cavity;

an activator substantially positioned in said device, said activator is selected from the group consisting of a push button and clicking mechanism or twist and ratchet mechanism; and

a reservoir located between the applicator and the activator for storing the composition;

wherein the activator is configured to dispense the composition from the reservoir.

39. (Original) The pen of claim 38, wherein the therapeutic agent comprises a peroxide.

40. (Previously Presented) The pen of claim 38, wherein the therapeutic agent comprises hydrogen peroxide or carbamide peroxide.

41. (Previously Presented) The pen of claim 38, further comprising a mechanical piston at least partially disposed within said reservoir.

42. (Previously Presented) A dental therapeutic kit comprising:  
a liquid oral therapeutic dental composition comprising a moisture responsive gel carrier comprising a functional polymer and a therapeutic agent, the dental composition having a starting viscosity;

a delivery device comprising:  
an applicator for applying the composition to the oral cavity;  
an activator; and  
a reservoir located between the applicator and the activator and configured to store the composition;  
wherein the activator is configured to dispense the composition from the reservoir to the applicator;

a set of instructions for applying the therapeutic dental composition; and wherein the dental composition has a used viscosity, which is higher than the starting viscosity.

Claims 43-50. (Canceled)

51. (Previously Presented) The dental therapeutic kit of claim 42, wherein the applicator is selected from the group consisting of a brush, a felt tip, a roller ball, and a non-woven pad.

52. (Previously Presented) The dental therapeutic kit of claim 42, wherein the activator is selected from the group consisting of a push button and click mechanism, and a twist and ratchet mechanism.

53. (Previously Presented) The dental therapeutic kit of claim 42, wherein the used viscosity is measured when the dental composition is reacted with moisture.

54. (Previously Presented) The dental therapeutic kit of claim 42, wherein the functional polymer comprises at least a combination of two components.

55. (Previously Presented) The dental therapeutic kit of claim 54, wherein at least one component of the functional polymer comprises a polymer capable of altering the viscosity of the dental composition in response to contact with moisture, changes in temperature, pH, ionic strength or combinations thereof.

56. (Previously Presented) The dental therapeutic kit of claim 54, wherein at least one component of the functional polymer comprises vinylpyrrolidone polymers and copolymers.

57. (Previously Presented) The dental therapeutic kit of claim 54, wherein at least one component of the functional polymer comprises crosslinked homopolymers of acrylic acid, crosslinked copolymers of acrylic acid, interpolymers of homopolymers or copolymers of acrylic acid, hydrolyzed or unhydrolyzed PVP/maleic acid anhydride copolymer, polycarboxylates, gellan gum, poly(methyl methacrylate-co-methacrylic acid), hydroxypropyl methylcellulose phthalate, or cellulose acetate phthalate.

58. (Previously Presented) The dental therapeutic kit of claim 54, wherein said combination of two components comprises a polymer complex comprising carboxypolymethylene and polyvinylpyrrolidone.